



Executive Summary

The implementation of Open Banking in Brazil brings the expectation of more transparency and better financial services for the consumer, as well as increased competition and smaller fees. In this report, we show that Brazil's regulatory movement is in line with the international agenda and the country is in the forefront of a modern financial system. Considering this, we look into global Open Banking results (how many and what kinds of products have emerged) and compare it to the needs of Brazil's small businesses to provide a look into the project's transformational potential.

Looking at the international scenario, we found a strong growth in Open Banking-derived products in the years following its implementation, with Europe reaching 239% growth in 2020. Payments and banking solutions came out ahead: in 2020, banks developed 992 Open Banking products in payments, 917 in accounts, and 311 in other banking services. Fintechs focused on financial management in addition to payments and banking due to their main target audience being small businesses. Research showed Fintechs developed 223 products in payments, 113 in financial management, and 112 in banking.

Two categories of product stood out in banking: apps that compare financial products/services from multiple institutions, and services to facilitate portability between account providers. As for financial

management solutions, cloud accounting, cash management services, and apps that use artificial intelligence to forecast cash flow received distinct attention. Easier access to credit due to improved risk assessment also caught the eye of the market and consumers.

In Brazil, 38% of small businesses feel that they are poorly served by financial institutions, and they are particularly relevant to the country's economy: more than half of employed people in the country are in small businesses. If we add those who consider the services as "regular", results reach 74%, meaning only 26% say they are "satisfied". Small businesses also face strong credit restriction due to the nature of their demand (short-term and highly volatile) and the fact that they have fewer assets to offer as collateral. In this context, the Open Banking products that seem closest the needs of Brazilian companies are the ones dedicated to financial management and product comparison, particularly those focused on credit.

The benefits of Open Banking for small businesses in Brazil can be extensive due to costs being reduced and innovation facilitated. The accompanying growth of marketplaces that are accelerating the digitization of the country's companies help the process but should be monitored to avoid cases in which some groups are systematically prioritized over others due to a marketplace platform nature.

Since 2019, Brazil's Central Bank (BCB) has been implementing "Agenda BC#", a regulatory modernization agenda that aims at keeping interest rates low and increasing access to and quality of financial services through technology. A continuation of "Agenda BC+", Agenda BC# has 5 pillars: inclusion, education, competitiveness, transparency, and sustainability, placing Brazil at the frontier of the international regulatory debate.

In this context, Open Banking is perhaps the most awaited regulatory measure of 2021. BCB expects to bring more transparency to data circulation between institutions, to induce better contracting conditions, and to incentivize the development of customized services for a diverse variety of consumers. Among the multiple benefits BCB seeks with this regulatory instrument, some stand out: increasing competition; reducing fees; and improving the quality of products and services.

BCB determined only authorized institutions can participate in the Open Banking ecosystem and that some would have mandatory participation while others would be given the choice to participate voluntarily. The fact that large banks are among those whose participation is mandatory shows how relevant the goal of changing market dynamics really is. The forecast is that all implementation stages

will take place in 2021: the first started in February 1st, the second is expected on July 15th, the third on August 30th, and the fourth on December 15th.

Understanding what Open Banking can bring to Brazil demands two analyses: (i) assessing the international scenario to guide quantitative and qualitative expectations, and (ii) understanding the countries' particularities to identify potential red flags so real results are closer to the expectations.

Considering this, the first part of this bulletin focuses on a benchmark of global Open Banking results regarding the quantity and profile of new products along with a contextualization of such results to Brazilian needs. We look into demands and bottlenecks that Open Banking may solve in Brazil if the country follows the same pattern of product development found in the international scenario.

The rest of the bulletin highlights a specific Brazilian challenge, among others that may exist, that requires regulators' attention if they want to preserve Open Banking goals. Namely, the fact that the country's digitization process (especially that of small businesses) is happening at the same time as Open Banking, unlike in developed economies.

¹BANCO CENTRAL DO BRASIL.

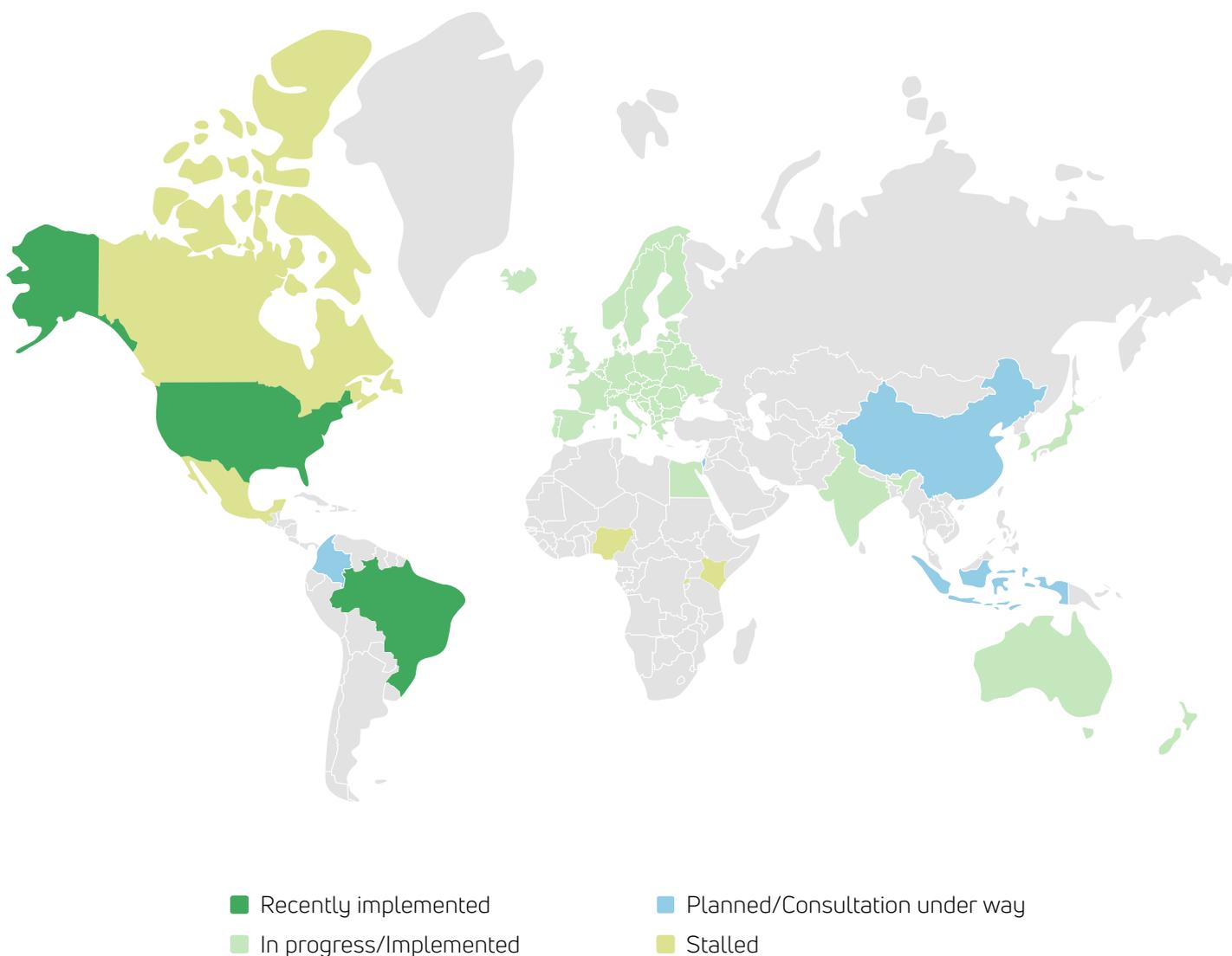
Agenda BC#. n.d. Available at: <https://www.bcb.gov.br/acesoinformacao/bchashtag>. Accessed on: March 9, 2021.

Font: Moneythor (2020)

1. International Open Banking Results

Open Banking gained momentum in 2015 when the European Union implemented the PSD2 Directive, pioneering the model. The United Kingdom (UK), then an EU member, stood out due to its swift response to PSD2 and development of an Open Banking project run by both the Bank of England (BoE) and the region's antitrust body (CMA). After the first movement from Europe, the idea of an open financial system with data flowing between institutions became popular and the agenda has been expanding over the past six years even if countries are moving at different speeds (Figure 1).²

Figure 1 | State of Open Banking Development in the World



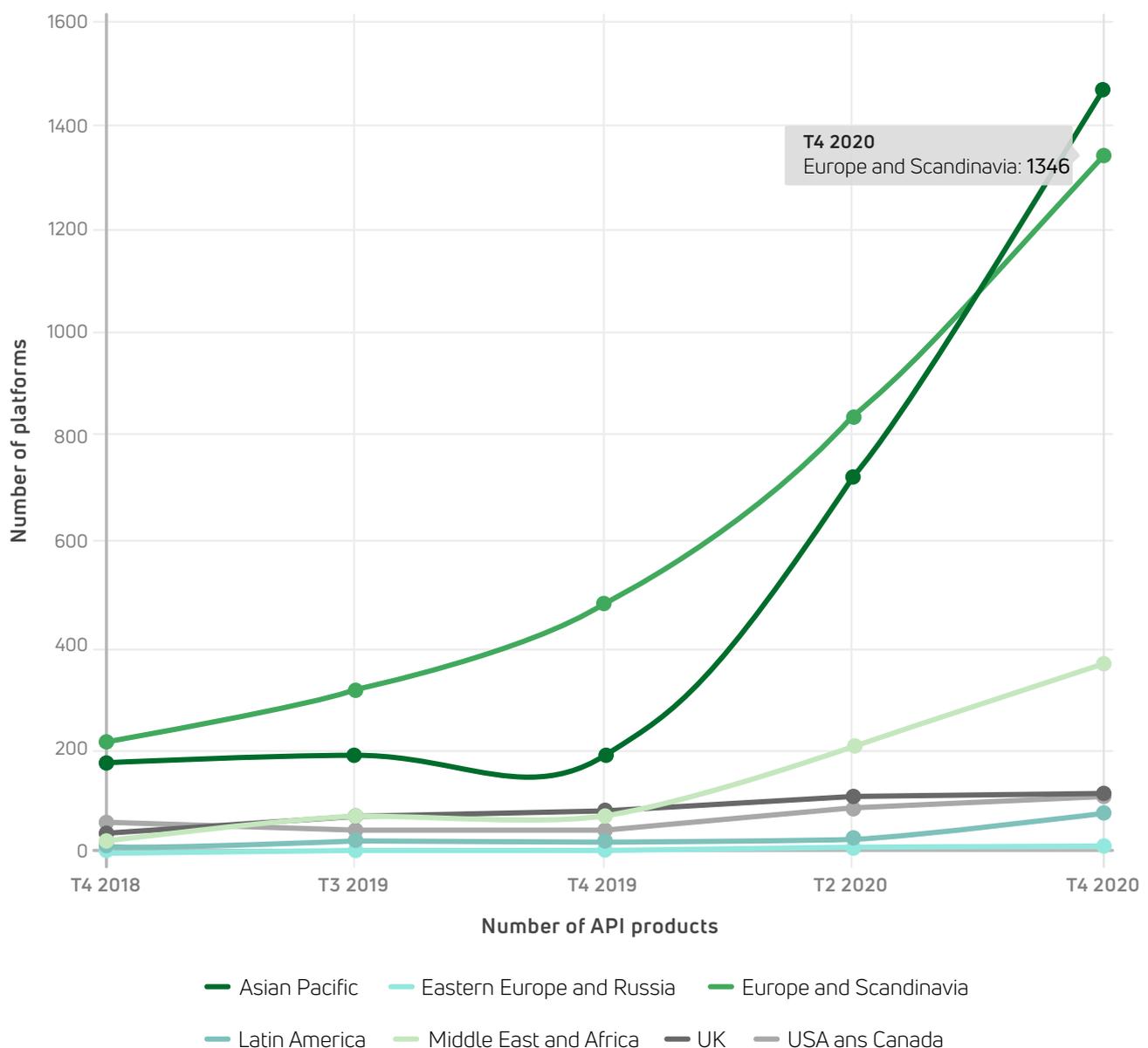
²PLATFORMABLE.

Open Banking APIs: State of the Market. 2021. Available at: <https://platformable.com/q4-2020-trends-report/>. Accessed on: March 9, 2021.

Adapted from Platformable (2021).

In addition to moving at different speeds, countries also have different goals. European countries and Australia have sought to increase market competition, while South Korea, China, and Singapore have focused on integrating technologies to lower the cost of innovation. Regardless, because these goals are not mutually exclusive, the expansion of Open Banking is evident: all regions have seen an increase in product development since 2019, with Europe’s pioneering spirit still being reflected in numbers (they had a 239% growth in product development in 2020) but Asia having the most Open Banking products by the end of 2020 (Figure 2).³

Figure 2 | Number of Open Banking Products by Region (Q4 2020)



³ PLATFORMABLE.

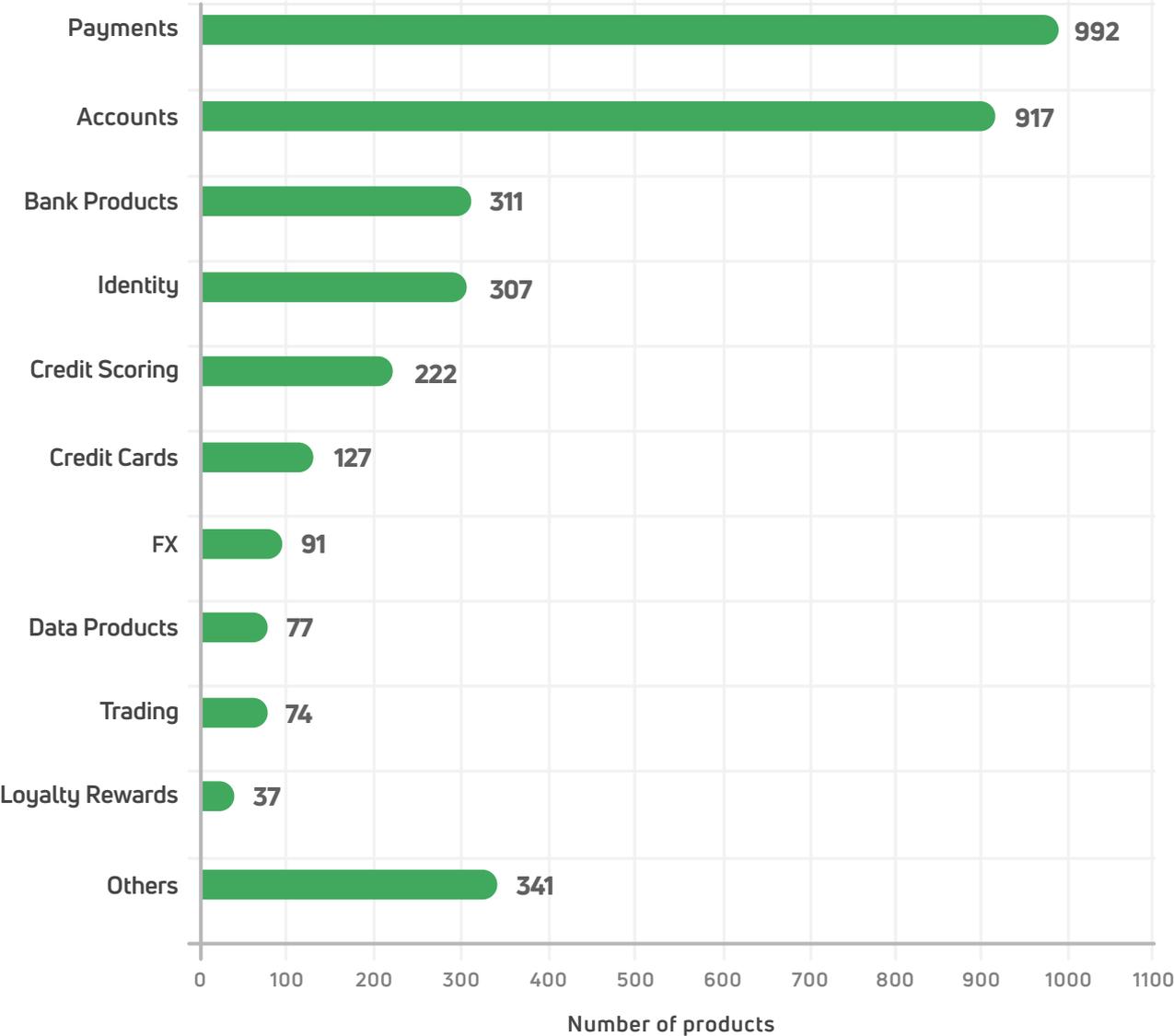
PLATFORMABLE. Open Banking APIs: State of the Market. 2021.

Available at: <https://platformable.com/q4-2020-trends-report/>. Accessed on: March 9, 2021.

Adapted from Platformable (2021).

Our focus, however, is on the profile of the new solutions: identifying for which sectors and finalities institutions are creating them. In that sense, the highlights are payments and banking. By the end of 2020, banks developed 992 payments products, 917 account ones, and 311 for other banking services. Fintechs focused on financial management in addition to payments and banking due to their main target audience being small businesses, which represent 66% of their Open Banking clients . In that context, Fintechs had developed 223 products for payments, 113 for financial management, and 112 for banking by the end of 2020 (Platformable, 2021).

Figure 3 | Products Developed by Banks, by Category, in 2020



⁴ PLATFORMABLE. op.cit
Adapted from Platformable (2021).

Due to its pioneering, the maturity of its policy, and the similarity with Brazil’s goals, it makes sense to analyze British results in more detail. They show that Open Banking has been growing gradually and reached three million users by the end of 2020 (Figure 5). Also, initial estimates found that it could generate £18 billion annually in value for consumers⁵. Additionally, the 2020 Small Business Financial Landscape research identified that 50% of small businesses already use services derived from Open Banking⁶.

Figure 4 | Products Developed by Fintechs, by Category, in 2020



⁵REYNOLDS et al. Consumer Priorities for Open Banking. 2019.
 Available at: <https://www.openbanking.org.uk/wp-content/uploads/Consumer-Priorities-for-Open-Banking-report-June-2019.pdf>.
 Accessed on: March 9, 2021.

⁶OPEN BANKING IMPLEMENTATION ENTITY. Small Business Financial Landscape. 2020.
 Available at: <https://www.openbanking.org.uk/about-us/latest-news/adapting-to-survive-uks-small-businesses-leverage-open-banking-as-part-of-their-covid-19-crisis-recovery/>. Accessed on: March 9, 2021.

Source: Adapted from Platformable (2021).

Figure 5 | UK's Open Banking Results Three Years After Implementation



Looking at the new product categories and starting with banking, the UK highlights are platforms that compare products and services that facilitate portability between providers. In the survey, 20% of the small companies surveyed changed financial products in the previous six months. Those who had joined Open Banking also became likelier to change their home institution (17% among Open Banking users versus an overall average of 10% and only 4% before the project)⁸.

Open Banking also brought new financial management solutions to the UK, with cloud accounting and cash management services standing out: 24% of the surveyed companies contracted these services, that makes it possible for them to send information to their accountants over the Internet in a secure and standardized manner. Research showed that 41% of those who used this service reported reduced administrative costs. Cash flow forecasting with artificial intelligence also attracted attention: 21% of the sample contracted it to estimate revenue/expenses based on recent history and 27% stated that it resulted in a better understanding of the business⁹.

Banking

- + Information about products and services are available to customers.
- + access to portability between providers.

Adapted from Open Banking Implementation Entity⁷

⁷OBIE Highlights. Feb 2021. Available at: <https://www.openbanking.org.uk/wp-content/uploads/OBIE-Highlights-January-2021.pdf>. Accessed on: March 9, 2021.

OBIE Highlights. March 2021. Available at: <https://www.openbanking.org.uk/wp-content/uploads/The-OBIEs-Monthly-Highlights-February-2021.pdf>. Accessed on: March 9, 2021.

Financial Management

- Administrative time and cost
- + Understanding of the business

Lastly, there is the dimension of credit. During the pandemic, most SMEs received government assistance in the UK, which could reduce their demand for credit. Even so, 18% of them searched for and received credit from alternative institutions (cooperatives and fintechs) that benefited from the end of the data monopoly by large banks. By facilitating data circulation and, therefore, risk assessment, Open Banking reduced the time and administrative costs involved in credit application. It also made it

easier for companies to take the first step in establishing relationships with new lenders. Results also showed that 60% of the companies that received credit from institutions other than large banks claimed greater resilience during the pandemic because of it¹⁰.

Credit

- Time gathering documentation
- + Information available for risk assessment
- + Room for the use of institutions other than large banks
- + Customized products for targeted audiences



⁸ Id. OBIE Highlights. February 2021.

Available at: <https://www.openbanking.org.uk/wp-content/uploads/OBIE-Highlights-January-2021.pdf>. Accessed on: April 20, 2021.

⁹ e¹⁰ OPEN BANKING IMPLEMENTATION ENTITY. op.cit

2. The Open Banking Outlook for Small Businesses in Brazil

The expectation is that Open Banking will stimulate financial innovations in Brazil similar to the ones seen abroad and that it will reach a diverse profile of customers. There is a distinct expectation for the impacts of the project on small businesses, represented in Brazil by 3 categories: individual micro-entrepreneurs (MEI), micro-enterprises (ME), and small enterprises (PE)¹¹. In 2019, more than half of those employed in Brazil were in companies that had up to five employees¹², and only one in four who worked for the private sector¹³ were in a company that had more than 50 employees¹⁴. So, any regulatory movement with the potential to solve their problems is highly relevant to the entire economy, and Open Banking fits the scenario because small companies have difficulties accessing financial services despite their importance to the country.

In 2018, the Brazilian Micro and Small Business Support Service (SEBRAE in Portuguese) found that 61% of small compa-

nies considered the banking system bad or very bad. In 2020, results improved, with 38% rating the banking system as regular and only 36% as bad or very bad¹⁵. Nevertheless, more than a third are not well served.

This becomes clear when we consider their experience looking for credit, which has two obstacles common to all Latin America. The first is the short-time and high-risk nature due to demand volatility¹⁶. An example, and one of small companies' main needs, is cash flow flexibility: the object of 62% of new loan applications in 2020¹⁷. The second is that they have fewer assets to offer as collateral. Both characteristics taken together result in credit constraints¹⁸: smaller companies face higher interest rates. Policies to stimulate credit in 2020 reduced the spread for small companies' operations, but they still pay the highest rates of any legal entity in Brazil (Figure 6). They have, therefore, the most to gain from Open Banking.

¹¹All three acronyms are derived from the Portuguese original wording.

¹²Excluding civil servants and domestic workers.

¹³Formal and informal.

¹⁴IBGE. Pesquisa Nacional por Amostra de Domicílios Contínua Anual (*National Household Sample Survey*). 2019. Available at: <https://www.ibge.gov.br/estatisticas/sociais/trabalho/17270-pnad-continua.html?edicao=28549&t=sobre>. Accessed on: April 20, 2021.

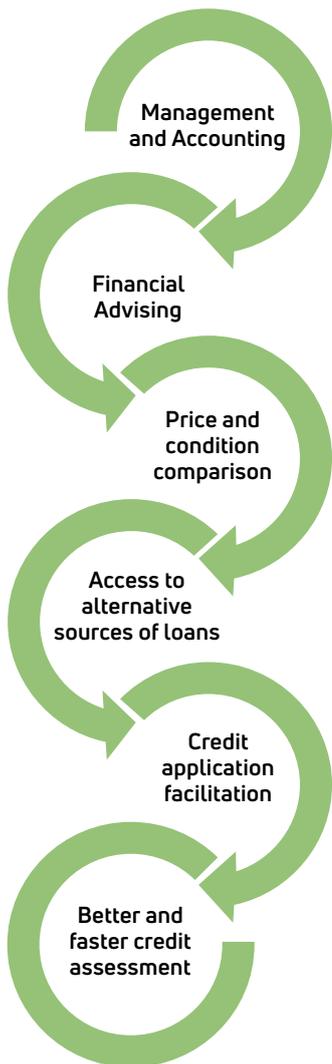
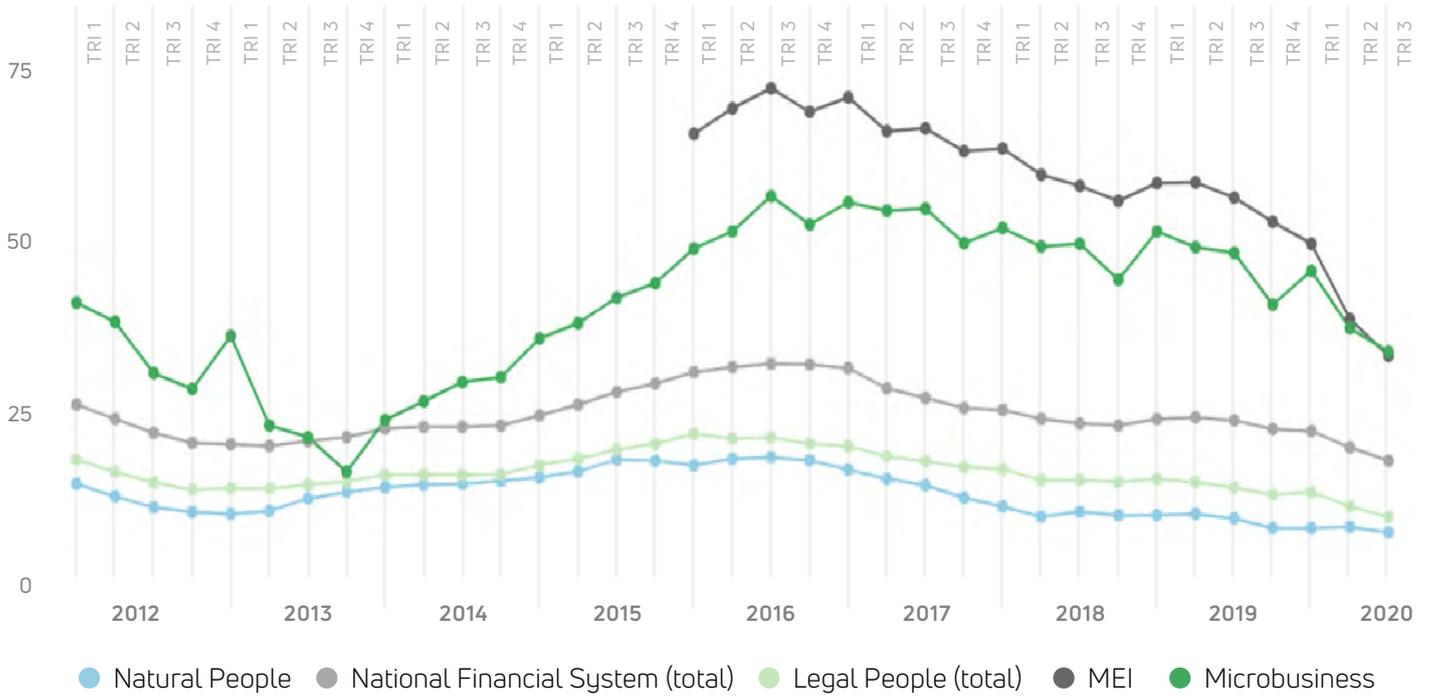
¹⁵SEBRAE. Financiamento dos Pequenos Negócios no Brasil 2013-2020 (*Financing Small Businesses in Brazil 2013-2020*). November 2020. Available at: https://datasebrae.com.br/wp-content/uploads/2021/01/Pesq_Financiamento-2020_Final.pdf. Accessed on: April 20, 2021.

¹⁶FERRAZ, RAMOS. *Inclusión financiera para la inserción productiva de las empresas de menor tamaño en América Latina: Innovaciones, factores determinantes y prácticas de las instituciones financieras de desarrollo (Financial inclusion for the productive insertion of small enterprises in Latin America: innovations, determinants and practices of development financial institutions)*. Development Finance Series, No. 26. Santiago: ECLAC, 2018. Available at: https://www.cepal.org/sites/default/files/publication/files/43427/S1701244_es.pdf. Accessed on: April 20, 2021.

¹⁷SEBRAE, op. cit.

¹⁸FERRAZ, RAMOS, op. cit.

Figure 6 | Average Interest Rate of Credit Operations by Type of Borrower



Considering the international experience, Brazil’s Open Banking design, and the national context, we highlight which Open Banking solutions have the greatest potential to benefit Brazil’s small businesses:

Financial Management: Capacity building, cost reduction, and financial advice

- Cash flow control and forecasting
- Financial education and advice
- Accounting and tax management
- Commercial intelligence

Portability between participating institutions

- Comparison of services to find those more suitable and with the best rates
- Data sharing to facilitate portability among institutions

Sources: BCB, SCR, and Depef, 2021.

Credit

- Simplified credit application due to facilitated access to the customers' history and documentation
- Comparison of rates, terms, and conditions from different lenders

In general, these digital solutions that automate administrative tasks reduce the opportunity cost and give entrepreneurs more time and resources to dedicate to activities like expansion and hiring, for example. In Brazil, where many hours are spent on bureaucracy, this kind of solution shows great potential. Apps that aggregate transactional data, especially if combined with financial guidance and counseling services, can also facilitate decision-making processes, making them more efficient.

The same logic applies to apps that compare credit opportunities according to needs specified by the entrepreneurs: it makes the decision-making process easier and more efficient. Also, once they enter the Open Banking ecosystem, entrepreneurs can contact a wider variety of credit institutions. Among the 3 categories of small businesses in Brazil, MEIs are the ones who use non-bank institutions the most, but the majority of operations remain concentrated

in banks¹⁹ and Open Banking may change it and generate more competition in the market.

Large banking institutions sharing their data make loan application, review, and approval easier. This promotes the aforementioned time-saving logic. Processes based on data science and digital services result in a less than 24 hours approval of 64% of fintech applications²⁰. There are also other benefits aside from time: more credit history information being shared and processed using data analytics and machine learning make risk assessment more accurate and enables institutions to develop customized products for target audiences. Given how difficult it is for small businesses to access credit in Brazil, this Open Banking development stands out.

International data demonstrates that, in 2020's fourth quarter, banks developed 222 credit scoring products via Open Banking and that Fintechs developed 51 in 9 categories²¹. This is not enough to guarantee that credit will be cheaper, but it is an indication that Open Banking is living up to the expectation of generating more credit solutions.

¹⁹ BANCO CENTRAL DO BRASIL. Sistema Gerenciador de Séries Temporais: Inclusão Financeira e Indicadores de Crédito (*Time Series Generation System: Financial Inclusion and Credit Indicators*). Available at: <https://www3.bcb.gov.br/sgspub/localizarseries/localizarSeries.do?method=prepararTelaLocalizarSeries>. Accessed March 23, 2021.

²⁰ PWC. *A Nova Fronteira do Crédito no Brasil (The new credit frontiers in Brazil)*. 2019. Available at: <https://www.pwc.com.br/pt/estudos/-setores-atividades/financeiro/2019/pesquisa-credito-digital-19.pdf>. Accessed January 27, 2021.

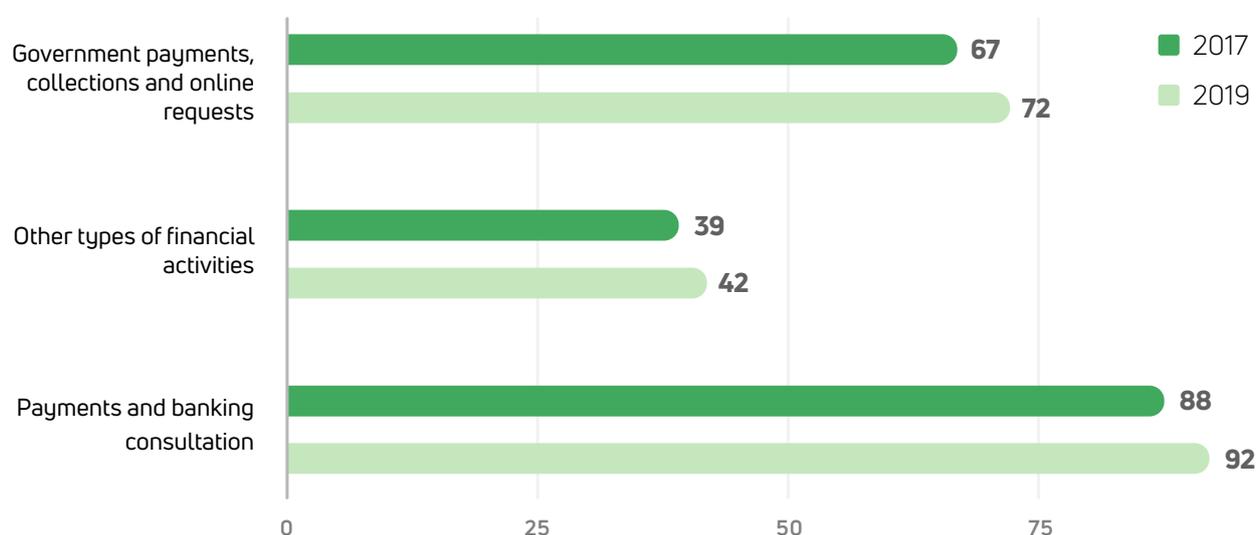
²¹ PLATFORMABLE. Op. cit.

2.2 Safeguarding the Benefits of Open Banking for Small Businesses

Brazil's Open Banking aims not only at opening the financial system but also at digitizing it. Thus, regulatory activity should account for the risks that the digitization process presents to small businesses and what impacts it may have on the expected benefits of Open Banking. First, it is important to discuss the relevance of the digitization movement: the more companies are used to the digital landscape (particularly small ones), the easier for them to understand why Open Banking is important and consent to participation. We use data from a 2017 and 2019 survey known as "TIC

Empresas"²² to provide insights on how digitalized small companies in Brazil are. Results show they have practically universal access to internet (98%) but digital financial activity is still incipient in some cases: 92% of companies make digital payments and banking consultation, but only 42% of them access other financial products (insurance and investment contracts, for example) digitally²³. It is worth noting that even if results for services other than payments and consultation are incipient, they grew by 7.7% between 2017 and 2019²⁴ (Figure 8).²⁵

Figure 7 | Financial Services digitized by companies (%)



Adapted from CETIC (2017, 2019).

²²The survey is developed by the Regional Center for Studies on the Development of the Information Society (CETIC.br) with the goal of measuring the possession and use of information and communication technologies (TIC) among firms with 10+ people employed using methodology and concepts from the manual of the United Nations Conference on Trade and Development.

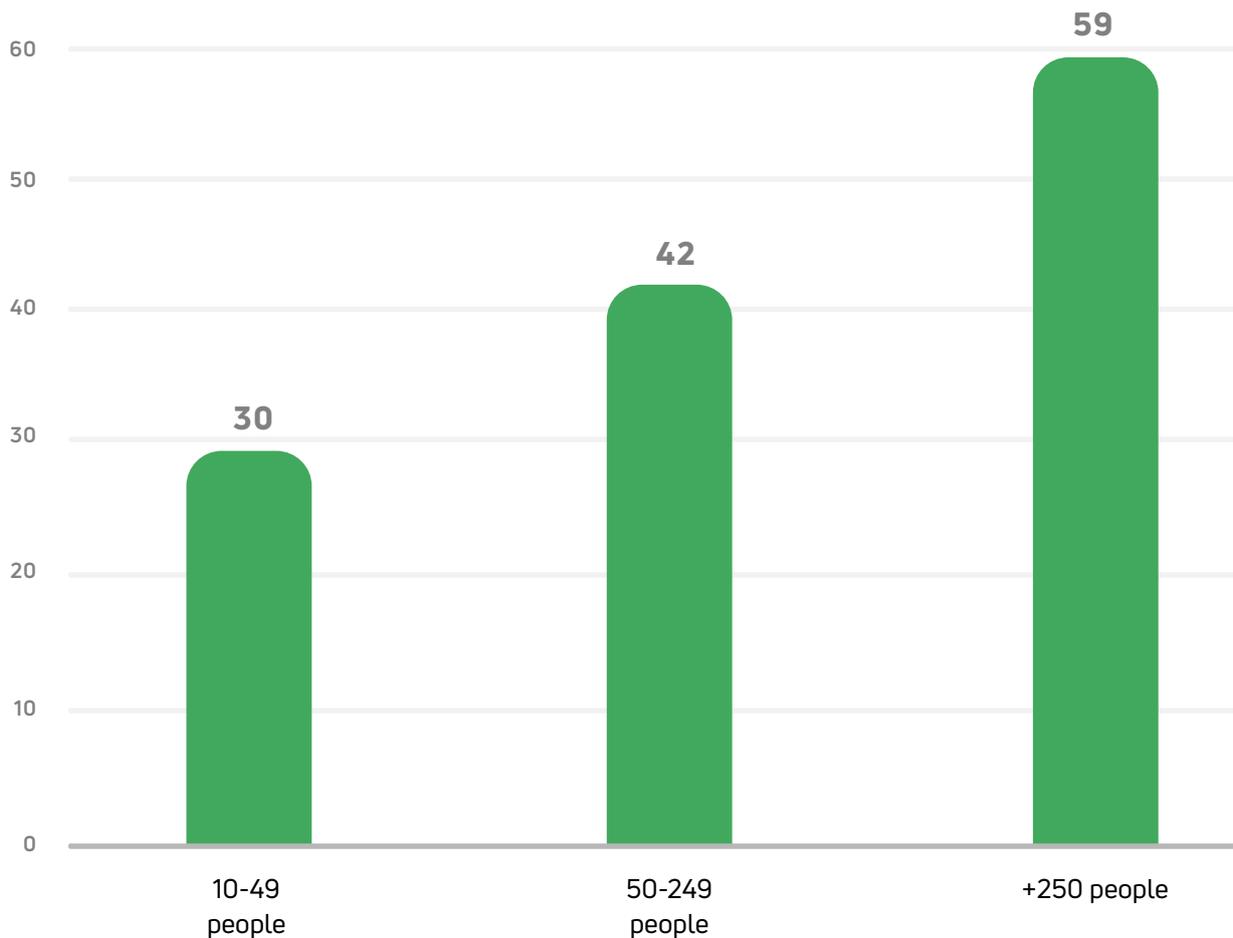
²³CETIC. TIC Empresas (TIC – companies). 2019. Available at: <https://cetic.br/pt/pesquisa/empresas/>. Accessed on: March 8, 2021.

²⁴All data are with the universe of companies that declared having access to the Internet. However, these are 98%, close to the total universe.

²⁵CETIC. TIC Empresas (TIC – companies). 2017-2019. Available at: <https://cetic.br/pt/pesquisa/empresas/>. Accessed on: March 8, 2021.

Moreover, the proportion of Brazilian companies that offer digital skills training is low, particularly in small companies (30%)²⁶ (Figure 10). Considering that Brazil does not have a mature understanding of individual digital skills, and that the companies that employ most of the population do not offer training, digitization remains a possible bottleneck for Open Banking expansion in the country.

Figure 8 | Companies that offer ICT training by Size (%)



Getting past the point of relevance, it is important to understand how the digitization process is likely to play out for small companies. Their most recent focus has been on making partnerships or entering marketplaces. At the global level, marke-

tplaces grew by 81% in 2020 while e-commerce grew 40%. They also extended their vendor networks by an average of 46% and the variety of products within the platforms jumped by 32%. Participating in marketplaces increased retailers'

Adapted from CETIC (2019).

²⁶CETIC. TIC Empresas (TIC – companies). 2019. Available at: <https://cetic.br/pt/pesquisa/empresas/>. Accessed March 8, 2021.

organic traffic by 34%, and each seller's net revenue reached US\$ 15,000²⁷. China stands out with only 10% of its e-commerce taking place outside marketplaces²⁸.

According to the Brazilian association of e-commerce (ABComm, in Portuguese), 95% of consumers who shop online do so through marketplaces. This growing demand for digitization was already present before the pandemic: the number of Brazilian retailers entering marketplaces grew 13% in the first half of 2019²⁹. Today, marketplaces account for 78% of e-commerce invoicing and, in the pandemic, had the highest growth in 20 years. Between March and July 2020 alone, 150,000 new stores entered marketplaces, with 80% opting for major market players³⁰.

This digitization through marketplaces brings "amenities" to the entrepreneur, especially less structured ones (the case

of small Brazilian companies): marketplaces offer payment infrastructure, logistics, marketing, and other resources that reduce the barrier for them to enter the digital world. However, there are some concerns about how digitalizing through marketplaces may affect Open Banking in a public consultation in the UK³¹. Their concern stems from two inherent characteristics of digital platforms like a marketplace: (i) the amount of information they hold about their users, and (ii) the possibility of discrimination between products and services by giving privileges to a group of users over others systematically. Following-up on these red flags to minimize them while promoting the benefits marketplaces can bring makes it easier for the Brazilian Open Banking agenda to achieve the potential benefits highlighted in this Bulletin.

²⁷MIRAKL. Enterprise Marketplace Index. 2021. Available at: <https://www.mirakl.com/2021-enterprise-marketplace-index-by-mirakl-reveals-marketplaces-grew-at-more-than-double-the-rate-of-overall-ecommerce-in-2020/>. Accessed on: March 11, 2021.

²⁸E-COMMERCE BRASIL. China: marketplace, modelos de negócios e o coronavírus (*China: marketplace, business models and coronavirus*). March 25, 2020. Available at: <https://www.ecommercebrasil.com.br/noticias/coronavirus-china-marketplace-modelos-de-negocio/>. Accessed on: March 11, 2021.

²⁹JORNAL EXCLUSIVO. Marketplaces Impulsionam o Crescimento do e-commerce ao longo da pandemia (Marketplaces push e-commerce growth during the pandemic). 2020. Available at: https://exclusivo.com.br/_conteudo/negocios/2020/09/17/marketplaces-impulsionam-o-crescimento-do-e-commerce-durante-a-pandemia.html. Accessed on: April 20, 2021.

³⁰IDEIA NO AR. Todos os dados sobre o mercado de marketplace (Complete marketplace data). 2020. Available at: <https://www.ideianoar.com.br/mercado-de-marketplace-entenda-o-crescimento-dos-marketplaces-no-brasil/>. Accessed on: April 20, 2021.

³¹INSTITUTO PROPAGUE. Open Finance: debates sobre o futuro do sistema financeiro britânico (*Open Finance: debates about the future of UK's financial system*). 2021. Available at: <https://institutopropague.org/noticias/open-finance-debates-sobre-o-futuro-do-sistema-financeiro-britanico/>. Accessed on: April 20, 2021.

3. Propague Trends - The Near Future

The characteristics of Brazilian small companies allow us to expect that the country's Open Banking will mirror, to a certain extent, international trends — especially the British case. In this sense, we expect the development of more products aimed at financial management like apps for cash flow control and forecasting, financial education, accounting and tax management, and business intelligence. Such initiatives are supposed to fulfill small companies' lack of tools to promote efficiency gains, improve business results

and have positive implications on the country's economic results.

Moreover, the analysis of international cases and that of Brazil suggests there is demand for Open Banking solutions focused on price and service comparisons. Open Banking may also offer better credit conditions that are more customized to the borrower's needs, bringing the possibility of including those who have been historically on the margins of financial services.



